

Secondary structure	Helix-1	Str-1	Str-2	Helix-2	Str-3	Helix-3	Str-4	Str-5 of CThairpin div	Helix-4	Str-5 of Helix-4 div	Helix-5 of TadA/AIPOBEC
CDD_Hsnp_263657(PDB:1MQ0)	21 S Q E A K Q S A Y C	6 V G A A L L T Q	3 I F K G C N I E N	4 L G C A E R T A I Q K A V S E	6 A I A I A S	7 S P G A	C R Q V M R E F G T	N W P V Y M T K P	2 T Y I V M T		127
CDD_Bsnp_30258(PDB:1JTK)	10 A L K A R D S M A	6 V G A A L L T Q	3 V V R G C N I E N	4 M G C A E R T A I Q K A V S E	6 M L A I A S	6 S P G A	C R Q V I S E L C G T	D F V I V L T N L	2 Q I K E M		116
PITG_10446_Pinf_301106304	138 A A E A R S S M A	4 T G A A L L T E	3 I V S A G A V E	2 L V C A E A H A V M K M L T S	9 A L A I C S	7 F P G A	R E L L A O C G -	D F V I V L V N A	2 T E D T R		242-Fused_to_tudor_and_SAM
bsd_Ater_143955286(PDB:2Z3J)	14 A T A T N S I P I	6 A S A A L S D	2 I F T G V N V Y H	2 G G C A E U V V I Q A A A A	6 C I V A I G	7 S P G R	C R Q V L L D L H P	G I K A I V K D S	2 Q P T A V G		117/
bsr_Bcer_461652	17 A T E K I T M L V E	6 G A A I R T K T	2 I S S A V H I E A	4 V I V C A A I A I G S A V S N	6 T T I V A V R	14 S P G M	C R E L I S D Y A P	D G F V L I E M N	1 K L V K T T		128/
LmjF36.5940_Lmaj_157877766	418 K E Q P N T F F S N	2 S V V T S V L T F	7 G V I A V M Y E L	4 G S R C S Q N A M G K L A S L	8 E V F M H G	9 F C G V	E N W I R R V T K	7 G D V T L Y M F D	3 P K I V I F		599/
MICPUN_103900_Msp_226520855	397 V O E M K K H R D V	2 V L V A L C C V R	1 Y F R G V N L E V	4 G S C C S R N A I G N A L A S S	3 D D I S L C L	16 K P G A	C K E W L L K I A E	2 P G F K V L M F G	3 C D D V Y I		592/
Pmar_PMAR005400_Pmar_239900952	75 A N K L R E Y M E R	19 V L S M L H V R	7 F F E G I N G E V	4 G S L C S S R A A I A H A R S V	20 M N D G H T	4 W P G A	C S E W L K K I Q Q	2 P N F R V L A F D	2 E M N V I Y		211/
PITG_06599_Pinf_262111867	17 L E G R D Q H E T	9 V L A L F S Y E	8 F W I G A N H E A	4 G A T C A R A A H A A Q U L L	6 K T I V I S	6 T P C T L	C R E F L L L S S P L	3 S T P F V S R A T	C H I P C V		131/
Ehux1000015290_Ehux_Ehux1000015290	35 A H R V R D E R V R	8 V A V A V W Y E	7 H W I G H N D E A	4 N S T C A R A A V Q L C M L	9 A V V I A S	6 T P C A L	R E F P M S S P L	3 D T R I V M E G G	G R R L D L		150/
mafB19_Nmen_254805593	35 V A A A K V A K L	2 K V I A K G T I	3 T F R D V G N S A	1 A N S H A E I G V I Q Q A V N A	6 S M T M T V	3 D V G Y	C K G D I A A A A Q	2 G L K S L T V N A	8 K T Y Y M T		193/
Peta_3456_Peta_283781223	4862 T P W D T I D H F R	2 O G T V A F V E I	3 K T F G V N S T A	2 S A L H G A H S M N A Y E K	7 D L L T L Y V	2 L L G P	C Q G A L P D L M K	2 G I E R L K I V T	3 R V G E I S		5002/
HMPREF9348_01319_Ecol_309794139	1476 Q I I D R K S L K	1 T G T V A Y E I	3 K T F G V N S V	2 A V A H A A H S M N A Y E K	7 E I T M Y V	2 Y T C P N	C K Q Y L P L M K	2 G I D K L I Y S	3 K V V L L P		1612/
PA39016_004380000_Pae_313112489	1007 F I K A W G E A V	2 S V T A E G R I	3 V T T D V N Q I	3 A D A I G V V Q K A F N E	6 D M T M N V	3 D C G Y	R G D I A A A A A	2 G L V S L T I Q A	8 K T Y Y M E		1166/
Pput_2613_Pput_148547830	709 F A T Q D P I G L T	2 9 H N A I T L Y	4 N K V A T G I W Q	17 L A T H T A R I T R E L S	5 P Q S	16 I V I E G	C K G K M N A F K G	2 G A D V E Y R W A	6 T E V W N A		852/
TEQU_0434_Tequ_319778608	1911 F T S L D P I G L W	3 1 H K A T T V T	4 V V K H K S N L V	17 L A T H T N N A T R L D L N	3 T M L I E G	2 R P C P R	C K G A M R V K A E	2 G A K V I Y T W P	6 K R E W E G		2054/
PM87977_02424_Pmar_149178993	10443 Y L Y A K P V A L	- 2 6 H Y A E W E L R	4 K I T R R I E T I	17 W A T G K I T S D L Y D S	7 F L N I D G	2 A P C S H	R G I M K R W A S Q	2 N M T I Q Y L G E	2 A T I Y K N		10380/
NAEGRDRAFT_51788_Ngru_290981146	707 E V E L L K K E M K	7 P G V T T E I	6 F V S D K N H P	12 L G S H S L A M A Y A F I H	8 I A N N L -	R V G D	C H M A T K Y I S K	4 K T I V R D A S -	R F H H E		850/
AT1G20230_Atha_15223802	609 E V D S T R N K M E	7 P G C S W I Q V	6 L L A G D K S H P	40 L W G S E K L A V V F G L L N	8 V I K N L -	R I G D	C H A V I K F I S S	4 E T F I R D T N	R F H H F K		750/
PSPPH_2819_Psy_71734831	274 A S Q A R A L D L P	5 V K T V S S N D	2 T L S D W N K K S	16 F S A S H A K Q M S I A S P N H	1 P L G V S K	P M T D	C Q G V F S Q L A K	4 E Q T V A D P K -	A I R I F K		398/
HMPREF9057_00892_Asp_320532150	602 A A R V K E Q L P A	5 R K A S S D R	3 A L S G W K K D R	16 F S A S H A K Q M S I A S P N H	1 P L G V S K	P M T D	C Q G V F S Q L A K	4 E Q T V A D P K -	A I R I F K		727/
AcceDRAFT_3276_Acel_303241425	200 A Y T T A R D I I K	4 K G C V A S N G	2 T L S G F G F K T	42 F A C H A E Q M L S L L T D K -	P I G I S K	P M P N	C V E Y F S K H A I	4 V K I T T D P K -	K T R I F F		328/
BACDOR_01063_Bdor_212691568	205 R A E D I A K L L P	4 G R T V G S D G	2 T L S G Y K K R A	5 S A S H A E K M L V K Q K E	1 A F G V N K	K I E C	C Y E F I Q K I A Q	4 T T F V T Q P I D	I A F G V N		339/
BURP5668_1122_Bspe_126439023	2997 D L M E S Q V A D I R	1 3 G V A Q D S I P	5 M A A S S I Q P D	4 R V K D S A K I I N N T A A Q	10 I N L F T E	1 P P E S	C S N T I T K F Q E	3 N I K I N V M D S	N G V I R P		3141/
Daci_4514_Daci_160899946	3564 S S L G K I D Q L R	1 1 A A F E N I -	3 I G E L V G I S G	2 5 R M M D S V K I E H L G G N	8 L M L F S E	1 P L I S	C S G V S Q F H E	3 G R F I V N H G	P K R - - -		3689/
hrpS3_Nmen_224022381	657 A L T A E S Q R R	13 A I A K D S I	5 M E A F S S F Q K	13 R N I D G E K K L E T A I Q	10 I D L F T E	1 K A Q S	C S N V I L F R N	3 N I O L N I F T	G K - - -		795/
PSPA7_3257_Pae_152987428	67 P S N A A K K E L V	6 T T A R F E Y S	9 R V Y N A M S G Q	4 9 R Q A E K A L R N L E S D	11 L T G F I S	1 A P E S	C K P M L E N V L P	3 Y V S E A H V S -	Y L P N A R		223/
ywqJ_Bsnp_16080672	466 L S R I A K S S G L T	5 P A V A G V L D	5 Y V F G I N I S G	1 A E S H A V N A L N E A L L	1 V V Y V S A	13 P R C H	E Y I T Q N T N Y	2 E A L K Y G K - -			602/
EcoM1_011010028429_Eco_307224485	52 L L A K A T S N T	5 R A V A V V D	5 I V Y G E G W P	22 I E N C A K A N E A K A	5 D L E H T	9 P M K N	Q S T I F G A N V	2 G - - - - -			164/
Sare_3343_Sare_159038884	1307 T T V G S P D Y L S	5 P V L I T G V K D	5 I W T S L H K S	24 S G I N G V H G I N E L	1 W R 13 F S Y S V	11 P C P V	C S R L T P W L -	2 G - - - - -			1426/
TccO8_Plum_37528020	816 K S L G K I D L F E P	5 P D N P E K K	6 F I S G I E S A Y	32 A E L A V Q A N N F R I K	25 I F T E R L	9 T A C P	C T G I L Q W P T R	2 T G T M - - - - -			962/
doda_8P74_58177053(PDB:1VQ2)	5 T Y L Q K A Y L V S	8 K V C A V I K	3 I E S I V G S	18 E I A E N A L F A E N	7 T M V T T L	S P D	A - K A T A I Q S G	2 K V Y C E T Y D			1513/
ribD_Bsnp_83754936(PDB:2B3Z)	19 K A L A D A K M G	8 L V G A V V K	3 I V G M G M L K	1 G E A H A V A I H M A G A H	4 D I V T L	E P S H	S - D K L M K Q 2	0 Y I P N L E D			6/
TAD3_Scer_9755339	173 L S V K M A T A G K	3 M V S V F D P	4 D K V V A E D G R	6 P D H S V M V G R A G E R	17 D V L T H	E P C S M	S - M A L L H S R	2 R V F V A M R D P			321/
CNBC2910_Cneo_134109371	434 W P I S R K A W A V	5 V L K A L A N A	4 E L P V A T F C T	13 P L R A T L N C V A S I A -	H245 L F I S H	E P V M	S - M A L L H S R	2 E V F V F P R K			639/SET+Tad3
TAD1_Scer_6321194	25 E T S T R V I N E	2 1 L L A G A A T I	10 I S I A T G V K I	5 H B C A E I L A R G A T V	3 S A L Y T S R	L P C G D	S - D K L M K Q 2	0 Y I P N L E D			295/
ADAR_Hsnp_70166852	842 D O I A M L S H R C	16 L L A G A I T M K	8 V S L G I G N	14 D G H A E I S R R G R F R	3 H L Y T S T	A P C M D	S - D K L R W N	19 S V T L G Y L F S			1110/
tada_Aae_60593939(PDB:1WWR)	31 L R E A K A R F A E K	4 V G A I T V K E	2 I I S K A H N S V	5 P T A H A M L A I K E A C R R	9 E L Y V T L	E P I M	C S - Y A L V L S R	2 K V I F S A L D K			164/
TAD2_Scer_6322425	11 V R L A R F A L D H	4 V A C I F V H T	4 V M A Y G M N D T	5 V A H A R M G D I C K	K A M 13 T L Y V T V	E P I M	A - S A L K Q L D	4 V F C G N E R F			158/
Bd3614_Bbnc_42524957	161 P R G S V L H D W	3 A A F L L N D Q	2 L S Y G M S N	3 K T L A E V N V Q R L H R E	9 V L Y S T H	K P C K M	A - G M Y H W C	6 K V Y S V E E -			275/
MICPUN_102230_Msp_255082492	253 N T Q T L W L E R D	3 V A A L V S P R	2 V D A A R N V N	3 K L C H A E N L L A P T	L W G 30 R V I V T L	Q C K M	C A - A L V C A A A	9 E V Y V L N P D -			394/
PmCDA1_Petma_126507754	14 D I Y T F K K Q F F	8 R C Y V L F E L	10 W G Y A V M K P Q	4 G I G H A E I F S R K V E E Y	8 T I N V Y S	2 S P A D	A - E K I L E W Y	7 G H T L K I W A C			165/
AICDA_Hsnp_10190700	11 F L Y F K N R V R W	7 Y L C V V V K R	10 F G Y L R N K N -	- G C H V L F R Y T S D W	8 T I N V T F	2 S P Y D	A - R H V A D F L	4 N L S L R I F T A			153/
AIPOBEC2_Hsnp_5802978(PDB:2NYT)	52 F K F Q R N V E Y	7 F L C V Y V E A	10 R G Y L E B E H	A M A H A E A F N T L P A	7 N V T W Y V	2 S P C A	A - D R I T K T L	4 N R L L L V G			193/
AIPOBEC4_Hsnp_74751569	48 F C Q I F - G F P Y	7 K H L T F Y E L	9 K G H A S S C T G	N Y Z H P S M L E M N G Y L	11 H I L L Y S	2 S P N E	I - S K M Y N F L	4 G I T L S Y F S			203/
AIPOBEC3F_Hsnp_24416443	200 F Y F H K N L R K	7 W L C F T M E V	10 R G V F R N Q V D	2 T H G H A R C F C S W F	C D D 8 E V I T W T	2 S P P E	A - G E V A E F L	4 N V N L T I F T A			347/
AIPOBEC1_Hsnp_2696116	19 E P W E D V F W	6 E A G L F Y E I	9 R S S G K T E K -	- N V Y V N F K K R E F	9 S T W F L	2 S P W E	S - Q A T R E F L	4 G V T L V Y V A			158/
B3gp45_Wend_222825157	2136 F Q G S K T S I E A	7 A N F S L F E	2 S G S G K T E K -	- K L H A T S Y I T G Q R S E	8 K E I M K L	2 S P Q N	T - R E I T E Y V	8 N F L S L G M E			2279/
NEMVEDRAFT_v1g248558_Nvec_156208551	46 D H E H K K I A K A	10 F C G A F Y H V	2 V L A V A L V K Y	21 K M H A E F F F V M D	C O C Q 20 Q I T M Y L	2 Q G H L	C - C V M K K A K	5 N V E I V K P T			263/
MICPUN_56782_Msp_255074389	30 S H V R N S P T P D	10 L C H F F H C	30 V V V A A L R D L	16 S H A E V V V R D E L V	23 T L I Y Q	2 Q P G H	S - D A L V A G L	8 S V L R V A V S			260/
OTT_1508_Otu_189184415	224 E I S D R H S P T	7 E L L R V F E R	7 L V I K N M S	2 E Q Q E N V E Y W N K	7 G N V Y G	3 L S G T	Q - K V E Y Y N	2 E S V N K L E N H			379/
A11_04260_Rbel_157827168	68 A F R A K D L M K A	7 I A I K E F E K	4 T L Y V D G P L D	N K C H A M R I V D L	L K R R 9 E N I Y G	3 L C T S	C - D - V A N S N	11 E H K V N D P T			531/
Namu_1028_Nmul_258651268	390 A L R G A L D P G A	17 L Q S D G Y R A	18 P P N W H V G Q	3 D A E H G M T V D A L	D R D 11 V I R D L G	3 L A G A	C K - L A F A E Y N	5 P L G Y S I K V S			237/
Aael_0969_Camo_189502339	348 G D Q N K L Q E L K	2 4 R I R H M E G	8 F G A F T I E Q I	3 N E Q H A T I I A K K G I -	1 C D I Y G	3 R P A C	C - F Y I M L K G	7 Q H N G A L W N S			510/
TRIADRAFT_59514_Tadh_196011375	442 D I E P T F V E I D	18 O S Y N F I S Y	14 S Y E I L S N P -	D B L A E R Q L D Y E - -	4 P K R A G	2 L H P M	Y - L A T W A K N	7 G Y W K S D V I			587/
SELMODRAFT_427879_Smoe_302814633	88 Y L R A E F R G C A	12 K T R V A L H P	13 I S D Y V T Y N -	- G S V H C G K L P - - - -	1 E Y I V R S	3 L P F L	C A - F L L E T V G	3 K L V G N F Q W P			230/
LmjF33.1760_Lmaj_157875062	131 T Q E S L Q A A V A	2 G V A G V F Q I	2 F W L V T G E - -	- K G C H A E K K L E H	L T D 13 S K A L I T	2 L P C V A	C R - L F A I A F E	- S V A V L L P S			453/
NCU05062_Ncra_85079856	247 Q R I R A S T A V	16 K I H T A V P	19 V G R M T S N E K	30 M H S V L L H W H L	L T D 13 S P W I G	3 P C K L	R - Y V F E S R	S G V V R A S -			266/
TCME48_092320_Tgon_237838551	357 V C D L A G F A L H	3 L A R G E G S	21 H V T A R S E S	2 M T R A E L L Q E - - - -	2 E L R S E	6 G C S A	G - R - L A A V L T	3 V S C S V G G L			621/
XOO_2897_Xory_24624554	29 A Q S Q D D G G N	5 S C C S G F V T Y	9 V G S Y R I E	12 - C A N G E T E I L W N A L	- 7 I V E Y N I	2 S P S K	C - Q - N A L N L L	2 G Q E I Y S F D			152/
SC4A7.11_Scoe_21220850	1382 K L T A R A S T A V	1 - G C P V G L V	10 A Y R Y R T E S	10 F G S H E T E I L G L E A -	7 I T A L Y T	2 Q P C A	A - S V L T G S L	2 G T P V T S V P			1536/
BURP5668_A2951_Bspe_126445357	1412 L S E I N A L W A T	3 P T P S D V L V	21 V F A S A K K -	- G S D A I I D F L K G	7 I Q L G Y S	2 S P A E	L - E K T I G E -	G E F D W S L F			1539/
sce4086_Scel_162452362	1234 P I G L T L Q Q V	4 H P L F C A V	5 V S V A A M L D G	9 G C H A E R V L L G L - -	7 V A V A Y	2 S P C G	C H - D L D S S L	2 D V F V Y T H E			1367/
consensus/65%	. . . b . . . b . . .	. . . s s r h p . . .	. . . h . . . s s s . p . . .	. . . s . H U E B . h t . . .	. . . h . h . . .	. . . s c s .	C p . . . h h . . .	s h . h . . . . .	p . . . . h . . . .	s . . . . b . . . .	c a . h h p . h h . . .

127	CDD/CDA
116	242-Fused_to_tudor_and_SAM
117/	Blasticidin S-deaminase
128/	
599/	
592/	LmjF36.5940
211/	
131/	PITG_06599
150/	
193/	
5002/	MaFb19
1612/	
1166/	
852/	Pput_2613
2054/	
10380/	
850/	
750/	DYW
398/	
727/	
328/	
339/	
3141/	
3689/	
795/	BURP5668_1122
223/	
602/	
164/	YwqJ
1426/	
962/	dCMP deaminase
1513/	RibD
321/	Tad3
639/SET+Tad3	
295/	Tad1
1110/	
164/	Tad2/TadA
158/	
275/	Bd3614
165/	
153/	AID/APOBEC
193/	
203/	
347/	
158/	
2279/	AID/APOBEC
263/	-like
260/	
379/	
531/	OTT_1508
510/	
587/	
266/	
453/	Fused_to_TGT
621/	
152/	
1536/	XOO_2897
1539/	
1367/	